

The Southerner.

No. 2,—Vol. 1.

Tarboro', Edgecombe County, (N. C.) Saturday, January 10, 1852.

Whole No. 2.

THE SOUTHERNER,
GEO. HOWARD, Jr., Editor & Proprietor.

TERMS—PER ANNUM.
If paid within two months, \$2 00
Otherwise, 2 50

RATES OF ADVERTISING:
One square first insertion, 1 00
each insertion afterwards, 0 25
Cards, a year, 5 00
Court Orders and Judicial advertisements 25 per cent. higher.
Yearly advertisements by contract.

AGRICULTURAL.



From the Journal of Agriculture.

THE GRAMMAR OF AGRICULTURE.

BY PROF. J. J. MAPES, NEWARK, N. J.
NO. II.

In our opening number of this series we gave some account of the organic portion of plants and soils. The organic portions were stated to be those which may be dissipated by burning, and that the parts left as ashes constituted the inorganic portions, and of these we propose to treat in the present number. The organic portions, as before stated, are principally received from the atmosphere, being placed there by the decay of former crops, animals, &c.

The inorganic constituents of the soil, and therefore of plants, are all to be found as components of rocks, and by their gradual crumbling or decay, soils are formed, and hence these inorganic constituents are found in soils.

Some of these are soluble in water; others require the influence of the air to render them soluble; others, by combining, are rendered soluble, although when uncombined, they are comparatively inert for the use of plants;—and all these conditions are brought about by stirring the soil, admitting the atmosphere to circulate freely among its particles, and by mixing them intimately with each other.

Much the larger portion of plants is organic, while the greater mass of the soil is inorganic; still, if any one of the inorganic constituents found in the ashes of a plant, when burned be absent from the soil in which we wish to grow the same plant, it cannot succeed, and it is therefore important to know what these inorganic constituents are, and how they may be replaced when absent.

The following are found in plants and soils:—Potash, Soda, Lime, Magnesia, Oxide of Iron, Oxide of Manganese, Silica, Chlorine, Sulphuric Acid, (Oil of Vitrol) Phosphoric Acid, and Alumina.

Our readers who fear technical terms, have only to add the above list to the four organic substances in our first article, and they have all the *hard names* before them which are requisite to be understood in the study of high farming. Certainly this list is not so alarming as that in general use among farmers, and which so troubles the citizen to understand when visiting the country. The names of agricultural tools and terms, now in common use, are as difficult to learn as the names of the chemical constituents of plants and soils. Among these we might name the words *Furrow, Plow, Sythe-smith, Mould-board, and* a thousand other words, which to the merchant or lawyer brought up in a city, would be equally unintelligible with Potash, Oxygen, Nitrogen, &c., &c.

POTASH is a necessary constituent of many plants, and exists in most soils. By leaching the ashes of plants with water, we get a solution of potash, and when this solution is evaporated to dryness, and the residue is heated to redness, to destroy impurities, it will take up Carbonic Acid, and become *Pearl Ash*. Soils from which all the Potash has been removed by former croppings, will not raise wheat and many other plants, and in such cases its addition is indispensable. The modes of replacing this and other constituents will be given in separate papers.

SODA.—This substance has many properties similar to those of Potash, and a few plants will accept of Soda in place of Potash, while many require both to secure their success. When Soda is combined with Chlorine, it forms common Salt.

LIME is so well known as to render a minute description unnecessary. When combined with Carbonic Acid it forms CHALK or MARBLE; with Sulphuric Acid, Sulphate of Lime, (Plaster of Paris); with Phosphoric Acid, Phosphate

of Lime, and in this state is the principal component of bones. When Lime is freed from impurity, by burning, it is called *Caustic Lime*, and if slaked will absorb one-fourth of its weight of water, without becoming moist to the touch.

MAGNESIA exists in many rocks, and in most soils. When combined with Sulphuric Acid it forms *Sulphate of Magnesia*, (Epsom Salts.) This substance is necessary for the growth of plants, but if in excess it renders soils nearly sterile. That class of Limestone called *Dolomites* contain Magnesia in excess, and the continued application of the lime made from this stone to soil is injurious to crops.

IRON is not found in the metallic state, but combined with Oxygen, as Oxide of Iron, (rust,) and in this state it exists in the soil. Sometimes Iron exists in the soil in combination with Sulphur, and it is then called *Sulphuret of Iron*, (Iron Pyrites,) or Oxide of Iron combined with Sulphuric Acid, as Sulphate of Iron, (Copperas,) and if in excess in this latter form, will render the soil sterile; such sterility, however may be overcome by the use of Lime, converting the Sulphuric Acid of the Copperas into Sulphate of Lime, (Plaster of Paris,) and thus separating it from the Oxide of Iron, which is not injurious to plants.

OXIDE OF MANGANESE is not present in all soils, and the ashes of many plants do not contain it; indeed, many suppose its presence less important than that of any other inorganic constituent, and hence it is seldom or never added to the compost heap.

SILICA is the base of flint and of common sand, and forms a large portion of most soils; it is also found in plants in large quantities. Thus the glazed coating on the outside of the rattan, bamboo, corn-stalk, sugar-cane, and indeed of all the stems of plants to a greater or less degree, is Silica, and to it may be attributed the strength of woody fibre. Although Silica is not soluble in water alone, it is rendered soluble by the presence of Potash, Soda, Lime, or Magnesia, and the influence of the atmosphere. When oats and other straw crops *lodg*, it is due to the absence of soluble Silica to give strength to the straw, and such results never occur in soils properly manured. By peeling off the outside of corn-stalks, and burning them in a crucible, we may obtain a *bottle of glass*, which is a combination of Silica and Potash, (Silicate of Potash,) without the presence of which in the soil a corn crop cannot fully succeed, however well it may be supplied with all the necessary constituents.

CHLORINE is a gas which is readily absorbed by water, and has the power of bleaching vegetable substances in its uncombined state. With Soda, Chlorine forms common Salt, and both it and Soda are plentifully found in plants.

SULPHURIC ACID is a combination of Sulphur with Oxygen, and is found combined with many substances in the soil. With Lime, it forms Plaster of Paris; with Magnesia, Epsom Salts; with Oxide of Iron, Copperas; and its more recent use as a solvent for bones, renders it a valuable adjunct in the hands of the scientific farmer.

PHOSPHORIC ACID, composed of Phosphorus and Oxygen. This substance, combined with Lime and other bases, is among the most important of the inorganic constituents of plants and soils, and exists in large quantities as *Phosphate of Lime* in the bones of animals. The use of bone-dust as a manure is well known, and the recent discovery of native bone-earth at Dover, N. J., and at Crown Point, N. Y., cannot but add materially to our grain crops.

When Phosphate of Lime is absent from a soil or exists in too small a proportion, full crops of wheat cannot be grown. Thus the wheat crops of Ohio have fallen from 35 to 15 bushels per acre, and of New York from 30 to 12½ bushels, simply because the Phosphate of Lime and Potash of the soil has been used up by injudicious croppings, without proper amendments. The application of a proper dressing of Phosphate of Lime dissolved in Sulphuric Acid, with Potash, will enable most of these lands to produce their former crops, and the expense would be less than one-half the cost of barn-yard manure alone, which now produces the minimum ratio spoken of above.

ALUMINA is nearly as plentiful in soils as Silica, and in clayey soils even in greater quantity. This substance is also found in many plants, but recent chemical researches have led to the belief that its presence in plants is merely mechanical, being carried into the plant by the ascending moisture, and not as a necessary constituent.

Alumina has the strange property of receiving and retaining the gaseous products of decomposition until required for the use of growing plants, and hence those soils which are fairly charged with Alumina are found to retain manures better than more sandy soils. Many have attributed this action to the mechanical tightness of the soil consequent upon the presence of Alumina, but such is not the fact; for if a barrel of sand be intimately mixed with Alumina, the brown liquor of the barn yard may be filtered through it, and be rendered both colorless and inodorous; but when the sand alone is used without Alumina, no such effect is produced;—indeed, if the earth's surface did not contain Alumina and Carbon, all the soluble filth arising from decomposition would long since have been resident in our wells and springs, instead of being retained at the earth's surface for the use of plants.

From the Plow.

VIRGINIA FARMING.

General B. Peyton, of Richmond, purchased a farm seven or eight miles above the city, on James river, some two or three years ago, which was in the same condition as thousands of others in that state, whose owners have abandoned them as worthless, or rather so worn out and unproductive as not to be worth cultivating. For this reason, thousands have emigrated from Virginia to newer and more fertile lands in some of the Western States, for the sole reason they could no longer support their families and servants upon a soil which produced old pines and broom straw, and but little else. And why? Because it had been *scratched, not plowed* year after year, until the surface was exhausted of fertility; and, however great the amount of richness beneath, it was a deep-rooted prejudice against *deep-rooting his plow into the earth*—it would ruin the land;—though if practised, it certainly could not have done so more effectually than the ruinous system which he has pursued to *ruin himself and land* too.

Here, now, within a stone's throw of the rich wheat and clover fields of Gen. Peyton, can be seen the same kind of land as his, covered with that worthless product—the most worthless scrubby pines and broom straw—contrasting with his fields, like a desert waste by the side of a garden of fruits and flowers.

By what magic has he wrought this change?—Not alone by the expenditure of capital for lime, plaster, bone dust, guano, or other fertilizers, but because he has

• Plowed deep. • Killed sluggards sleep. • Producing corn to sell and keep •

He has procured the best plows that could be obtained, and used them with four horses to a turning plow, followed by three more, subsoiling every furrow, in the stiff bottom land a foot and a half deep. This alone has the effect to restore the fertility to a degree that will treble the crops. He has every prospect now of twenty bushels of wheat to the acre, and counts confidently on ten barrels (50 bushels) of corn. His method of preparing land for corn is so much in contrast with theirs, who plant first and sow the land afterwards, that we will state it. In the first place, the land was plowed and subsoiled last fall, eighteen inches deep. This spring was well plowed with two horses, and now April 25th is being planted after the following preparation. A coulter—*which is somewhat of the nature of a small subsoil plow*—is run twelve inches deep, twice in a row, and all the ground loosened up by an iron tooth harrow; and the corn covered by a double furrow of the coulter, and then all the clods are carefully raked off by small iron-tooth rakes, which are far superior in every respect to hoes for that purpose. The ease with which such land is tilled through the season would surprise some of those who never plow till after the corn is up, when they break out the middle—if it can be called breaking—by a little scratching of a shovel plow drawn by a poor mule.

Such examples as General Peyton and others are setting in Virginia, are causing a great revolution in that State. Old field lands are bought often at greatly advanced prices; and people are beginning to find it is more profitable to improve their own farms, than it is to run off in pursuit of new ones. Truly the spirit of improvement is abroad; who shall limit its vast advantages to the whole country?

• A project is on foot in the southern and central portions of Illinois for

the establishment of an industrial university, in which the science of agriculture and the principles of mechanism shall be practically taught. The fund for this purpose now at the command of the State has accrued from the action & foresight of the constitutional convention assembled at Kaskaskia in August, 1818, in accepting certain propositions of Congress in relation to certain lands for school purposes.—NAT. INC.

POLITICAL.

THE GREAT MEN OF THE SENATE.—The Washington Correspondent of the Charleston Mercury gives the following graphic account of some of the great men of the United States' Senate:

"HENRY CLAY is failing fast, and becoming a very old man. He probably came here in the hope of recruiting his shattered and failing powers; but a heavy hand rests upon him which he cannot shake off. Since the last session he has broken down woefully. The collapse of the high excitement of the strife that then sustained him, and the utter annihilation of the high hopes he nourished, have suddenly aged him, and what but a short time since, looked like an old, but still strong temple—graceful yet in its proportions, firm still upon its base, is crumbling fast into a ruin. He has been confined to his room for the greater part of the session, and has recently been compelled to go to Philadelphia to recruit. It is more than doubtful whether he will ever fill his seat in the Senate again. To few is it granted to die as CHATHAM and CALHOUN, but CLAY is ambitious of meeting the same end. A great change is gradually taking place in our Public Councils, by the removal of those who long stood as conspicuous landmarks in the Senate Chamber and the Forum. He who now glances over that familiar scene, meets no more the lion port, and the eagle eye of CALHOUN—the face haggard and worn, yet bright with intelligence. The grand brow and cavernous eye of WEBSTER, full of lurid light, scowl no more on the spectators! and now, last lingerer of the three, the spare form and quick eye of HENRY CLAY pass like a shadow on the wall, on the way to the land of shadows. The big and burly form of BENTON, a strong man in his sphere, has also vanished from that scene, and CASS sits alone, unmoved and unmoved, amidst the 'noise and confusion' which now characterize that once dignified body."

A strange Coincidence.—Mr. Webster, Mr. Calhoun, Mr. Cass, Mr. Benton, and Mr. Van Buren were all born in the year 1782.

Mr. Clay's desire to re-appear in the Senate.—The Washington correspondent of the Philadelphia North American states that Mr. Clay has a great desire to be able to appear in the Senate once more, to utter his last admonitions against the danger of the new doctrines which now, says the correspondent, threaten the permanency of our institution. The correspondent adds:

"He would rather speak than write out his thoughts; and while maintaining, as he has always done heretofore, the cause of liberty throughout the world, and proclaiming himself its inflexible champion, he will at every hazard pronounce against the scheme of intervention. The time at which he means to make this exposition of his views cannot now be definitely fixed, and must depend upon his physical condition; but he is stern and resolved in his purpose to make it, and he will make it, even if in the attempt he should die on the floor."

THE NEWSPAPER.—The newspaper is about three hundred years old, the first of which we have any record having been printed at Anvers, in Flanders, in 1550, by Abram Verhoeven; but for nearly a century after that, newspapers were few and far between." It was not until the year 1620 that the Newspaper appeared in Venice, when it was called *Una Gazzetta*, because the price of reading it was a little coin of that name. It is therefore a mistake to date the Newspaper from Venice; for more than thirty years prior to its appearance there, the English Mercury was published under the authority of Queen Elizabeth. This was at the period of the Spanish Armada. It was irregular and of brief duration. The first French Newspaper was published in the year 1631. The first regular English newspaper appeared in 1663. It was called the Public Intelligencer, and continued three years, when it was merged, in 1669 into the London Gazette, a

Court Journal printed the previous year at Oxford, whither the Court had retired on account of the plague. In 1680, King Charles prohibited the printing of Newspapers and Pamphlets. The first daily paper after the Revolution in 1688, was the Orange Intelligencer, and in the year 1724, there were three dailies in London, besides various weeklies and tri-weeklies. The oldest English Provincial paper still in existence is the Nottingham Journal, commenced in 1714, and is, therefore, at this time, one hundred and thirty-eight years old. The oldest London Journal still in existence is the Morning Herald, in its eighty-sixth year. The Times, the most powerful Newspaper in the world, was established in 1787, and first printed by steam in 1814. Just one hundred and one years before this last date stamp tax on Newspapers was instituted. The origin of this stamp tax may not generally be known. The Newspapers and cheap pamphlets were the vehicles of the most of the attacks upon the Ministry, and to suppress or limit their circulation, Lords Balmfrouke and Oxford laid a tax of a halfpenny upon every issue. It does not appear that the plan was effectual. The stamp tax is still in existence in England, and in the year 1849, there were nearly eighty millions of stamps issued. The idea entertained by some people that this stamp is, "a tax on knowledge," is scarcely just, inasmuch as it entitles the Newspaper or sheet bearing it to free transmission in the British mails, thereby greatly facilitating such transmission. As it is paid by the publisher, it of course enhances the price of the paper. Much speculation has been indulged in touching the origin of the word Newspaper. The most plausible suggestion which we have seen is that which derives it from the conjunction of the four letters indicating the cardinal points of the compass, to wit:

N
W—E
S

and clearly suggesting the bringing together of all parts of the world.

The Newspaper had, it is true, a very humble beginning, but truly has it been said—

"Great ends from small beginnings rise," and now the Newspaper is the most potent instrument of human progress. Even in monarchial countries it has been termed the "fourth estate" in the realm; while in this Republican land it is the first and greatest power. In no other country is it half so extensively diffused. Here every man has his Newspaper—and happy is he who has not more than he can read.

"The folio of four pages happy work, Which not e'en critics criticize"—

as Cowper so amiably described it, is the chief source of information to more than half the civilized population of the globe. Who, then, shall measure its influence? *Southern Standard.*

Newspapers in the United States.—Holdridge's Statistical Almanac for the year 1852, estimates the number of newspapers published in the United States, annually, at 412,880,000, being equal to sixteen and half copies per year for every man, woman and child. While in the British Empire only one is published for every 25,000; in Persia one to every 20,186; in Russia, only three copies to every 1,000,000.

A Cruel Contre-temps.—Gen. Cavaignac's contract of Marriage, with a young and beautiful heiress, was to have been signed the night he was arrested by Louis Napoleon's troops. The fortress of Ham will echo many desperate sighs.

Shooting.—The Charleston Evening News of the 26th, says—A little boy, about nine or ten years of age, named Joseph McGorty, was shot in the abdomen by a ball from a pistol, while quietly looking on at a quarrel going on between some negro and white boys in Market street yesterday morning. The wound, it is feared, will prove fatal.

Another.—A negro man named John about 40 years of age, belonging to Mrs. A. P. Allender, residing in Bull street, was shot yesterday about 1 o'clock, in Market, near Meeting street. It appears that it was committed by one of a number of boys with a pistol, loaded with slugs or balls, two of which entered the abdomen, injured the intestines, and causing, it is apprehended a fatal wound.

D'ulcation.—On last Friday it was made known by his own voluntary confession, that Mr. Samuel Morgan, Teller in the Exchange Bank, at Petersburg, had embezzled the funds of the institution to the amount of \$10,000. The sureties in his official bond immediately made an arrangement by which the Bank is secured against loss. On Sunday, Mr. Morgan was arrested. Yesterday he was examined before the Mayo, and remanded for further trial before the Hustings court. Mr. Morgan had heretofore borne a respectable character, and was generally admired for the kindness of his disposition. Doubtless he was driven to the deed by the pressure of circumstances, which he wanted moral firmness to resist. *South-Side Democrat.*

A Singular Relic.—Capt. D'Auberville, of barque Chieftain, of Boston, writes to the editor of the Louisville Varieties, that he put into Gibraltar on the 27th of August last to repair some damage his vessel had sustained, and while waiting, himself and two of his passengers crossed the straits to Mt. Ailyas, on the African coast, to shoot, and pick up geological specimens. Before returning the breeze had freshened so much as to render it necessary to put more ballast in the boat; and one of the crew lifted what he supposed to be a rock, but from its extreme lightness and singular shape was induced to call the attention of the Captain to it, who at first took it for a piece of pumice stone, but so completely covered with barnacles, and other marine animals as to deny that supposition. On further examination he found it to be a cedar keg. On opening it he found a cocoon enveloped in a kind of gum or resinous substance; this he also opened, and found a parchment covered with Gothic Characters, nearly illegible, and which neither he nor any one on board was able to decipher. He however found on shore an Armenian book merchant, who was said to be the most learned man in Spain, to whom he took it, who, after learning the circumstances of its discovery, offered \$300 for it, which offer Capt. D'A. declined. "He then," says the letter, "read word for word, and translated into French as he read each sentence—a short but concise account of the discovery of Cathay, or Farther India, addressed to Ferdinand and Isabella, of Castile and Arragon, saying the ships could not possibly survive the tempest another day; that they then were between the Western Isles and Spain; that two like narratives were written and thrown into the sea, in case the caravel should go to the bottom that some mariner would pick up one or the other of them.

The strange document was signed by Christopher Columbus in a bold and dashing hand. It also bore the date 1493, and consequently has been floating over the Atlantic for 358 years.

The letter closes with an assurance from the writer that he would guard his treasure safe until his return to the United States, which would be in April or May next.

Printer's Freaks.—The printers in the Plymouth Rock office, tired of taking impressions on the forms of that paper, tried it on the hearts of two fair damsels. After several *settings up*, they succeeded in taking such fair proofs of the matter that this week the minister of the place was called in and *worked off* the whole four forms in two folio editions, leaving them *locked up* for life. Now then let them "circulate the documents."—*Spindle City.*

Mortality in the States.—The census of 1850 shows the following proportion of deaths to the whole population in the following States: Vermont 1 in 100. Iowa 1 in 94, Georgia 1 in 91. Michigan 1 in 87, Tennessee 1 in 86. North Carolina and Alabama 1 in 85. South Carolina 1 in 83. Maine 1 in 77. New Jersey 1 in 71. Virginia 1 in 74. Illinois and Delaware 1 in 63. Arkansas 1 in 70. Texas 1 in 69. Rhode Island 1 in 66. Kentucky 1 in 64. Maryland 1 in 60. Massachusetts 1 in 51.

There is a man in Troy, N. Y. so mean that he has never any thing to fit him—in purchasing boots or breeches, he always takes the biggest pair he can get for the money.